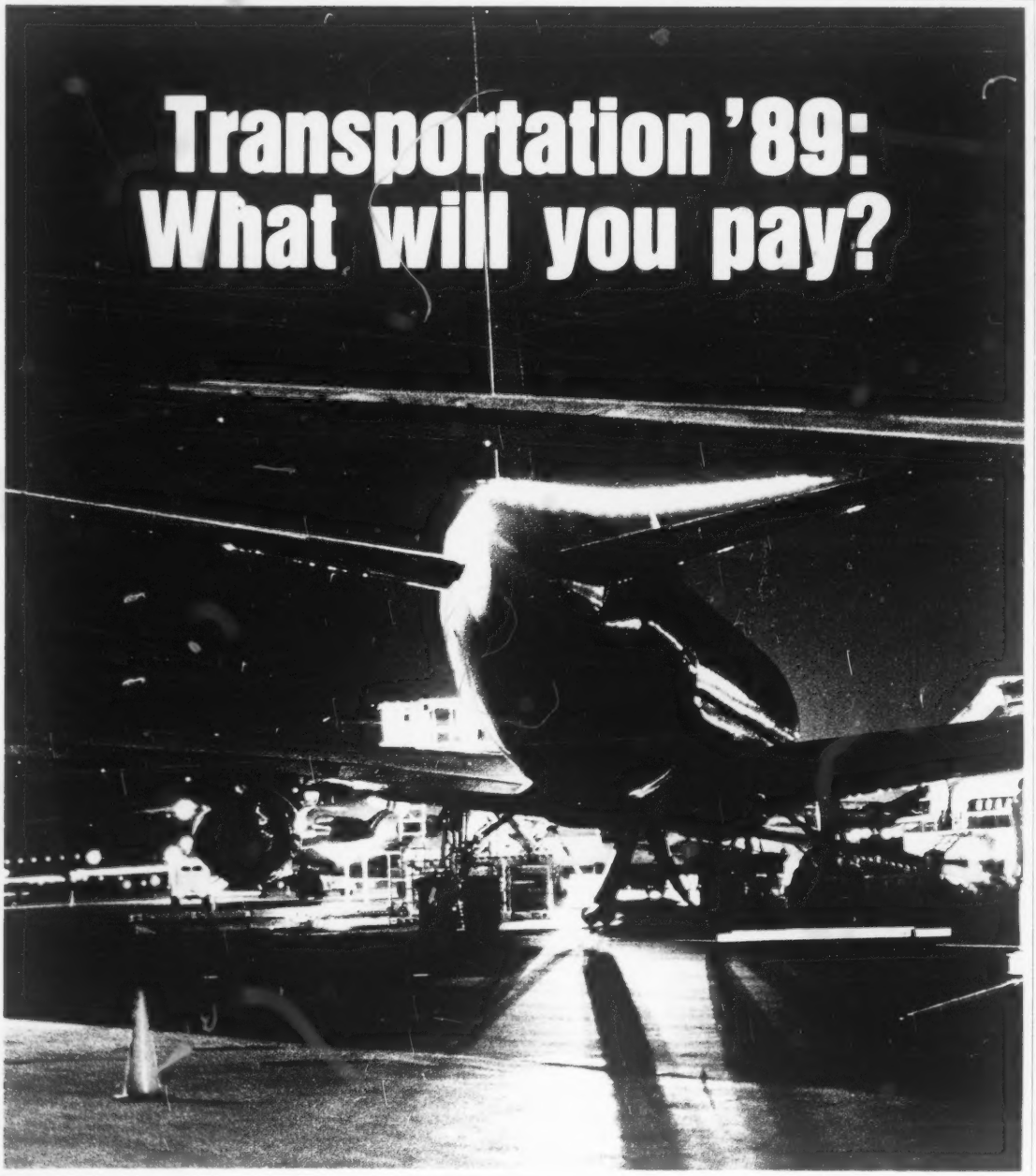
Transportation '89: What will you pay?



- Steel forecast
- Quarterly Wharton transportation forecast
- Special bearings report
- PW's comprehensive software survey

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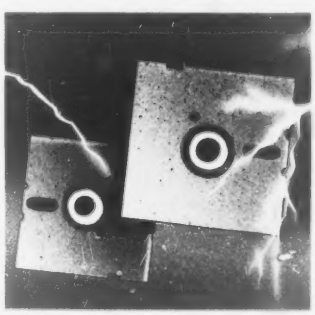

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System satisfies maintenance requirements

Said to provide for all maintenance requirements of all organizations in all locations is the "Compass 5" comprehensive, on-line, maintenance, purchasing and stores system. It includes modules for maintenance (planning, scheduling, equipment history, preventative maintenance, work order cost control and personnel accounting); stores (materials, inventory control, stock catalog and usage tracking); and purchasing (purchase requisition, purchase order generation and vendor analysis).

Exclusive system features include user-definable terms for maintenance items, up to 36 different sets of terminology (including language variations) in one system and multiple selection criteria searches for work orders, equipment and inventory items. A brochure describes the complete system. *Bonner & Moore Consulting Services.* **Circle 95**

Manufacturing game simulates real-life

An educational game, titled World Class, simulates actual manufacturing conditions and options, and recreates shop-floor operations with participants experiencing improved productivity as they play. The simulations demonstrate the benefits of such philosophies as continuous improvement, just-in-time, total quality control and flexible manufacturing. **Circle 104**

Free bar code design guide

Handy, comprehensive guide from Computype contains descriptions and diagrams showing size ratios of more than 12 elements that must be considered when designing your bar code label. A grid is provided as a guide for the design and an '800' number is offered in case you need help. You can mail your completed label design to Computype and receive a free, no-obligation need analysis. *Computype, Inc.* **Circle 105**

Written forms enter data directly into computer

Scriptwriter, a clipboard-sized writing surface captures handwritten data as it is written on a standard paper form, and stores it directly in its own computer memory in ASCII code. Corrections can be made by simply waiting over the error.

At day's end, Scriptwriter is plugged into the host computer, data is transferred directly, batteries are charged and the unit is ready for the next day's entries. *Data Entry Systems, Inc.* **Circle 106**

Corrosion-resistant alloy introduced

A new alloy, AL6XN® , has shown significant resistance to chloride ion attack and a variety of general corrosive environments, according to Allegheny Ludlum Steel.

Typically, stainless alloys have insufficient resistance to high chloride waters used for cooling purposes or brines used in the recovery of salt or in food processing procedures. A-L's research has shown that increased amounts of chromium, molybdenum and nitrogen can make stainless steel much more resistant.

Circle 93

Bar code module for PCs

A bar code module which interfaces with the company's already-existing purchasing software has been announced by American Tech, Inc. According to the company, Consolidate Glass in Galax, VA, was the first to implement the module, which allows portable DataLogic bar code readers to capture physical inventory and shipment transactions and load them directly into the purchasing package's inventory control module, reducing data entry time and improved accuracy. **Circle 94**

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by Robert S. Reichard, editor-in-chief

January prices above normal

Take the modest first quarter industrial price acceleration with two grains of salt.

True, advances have been somewhat more numerous over the past month or two. But this can be regarded as a seasonal effect—as suppliers use the beginning of the year to raise price levels for the entire 12-month period.

This can be backed up by NAPM Business Survey Committee statistics. Based on decades of past data, the group finds that the net number of purchasing executives socked with higher prices in January generally runs about 3.5% above normal. Also reassuring from the latest NAPM report the number of commodities reported as higher priced last month was significantly less than noted over the past year.

But reasons for continuing optimism on avoiding another price runup are based on a lot of other factors.

For one, manufacturing productivity continues to rise at a relatively respectable rate. Last year's advance came to 3.2%—and there's little to suggest any radical decrease for 1989. True, low unemployment may mean some rise in wage rates. But with unions more concerned with security than pay hikes; (not unlike Congress!) another close-to-3% productivity offset should be enough to keep unit labor increases to very modest proportions.

Also pointing to restraint on the cost side of the equation is the fact that many of last year's raw material price runups seem to be running out of steam—partly because 1988 was a year of "catchup" from earlier depressed years and partly because of new capacity that is beginning to come onstream in these critical areas. In any event, no one expects a repeat of last year's huge jumps in metals, plastic resins, chemicals and paper. Indeed, some weakness is beginning to crop up, most notably in steel and some of the big-volume plastic resins.

Market forces also suggest price restraint in the quarters immediately ahead. Slow GNP growth (2-3% for 1989 as a whole) when superimposed on stepped up capital investment (probably enough to boost capacity 3-4%) indicates that factory operating rates are about as high as they're going to go—and may show some fractional slippage by the third or fourth quarter of the year.

Also on the supply/demand front is the continuing pressure of import competition—which has persisted despite the sharp decline in the value of the dollar over the past few years. Point to keep in mind here: The world is still awash in excess capacity. This is true not only of commodity markets like oil, but also in goods which have been hit by a wave of relatively low-price, high-quality goods from the newly industrialized nations of Asia. The combination of this world glut and a more internationalized U.S. economy means strong constraints on new supplier price-boosting attempts.

Another reason why imports are still a potent factor: Not all foreign wage costs have moved up as much as some recent statistical studies would seem to suggest. Case in point: Recent Bureau of Labor Standards data finds that compensation costs in Japan's electronics, electrical equipment and auto industries are still well under those prevailing domestically.

Finally there's the Fed, which is more determined than ever to keep price increases within bounds. Witness the slow rise in interest rates—one which is expected to continue for at least another 3-6 months. If nothing else, this should take some of the demand/pull heat off prices.

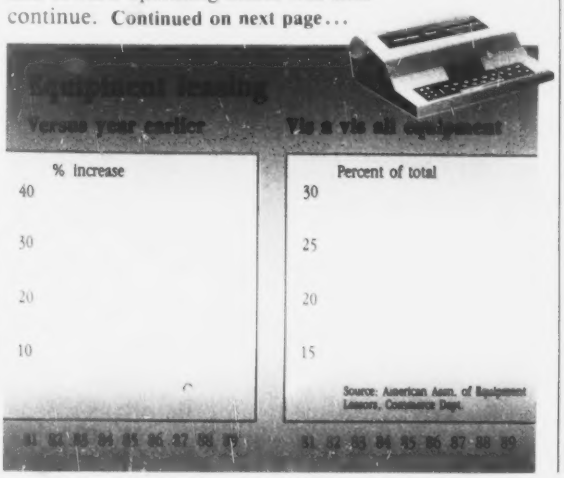
Leasing: The name of the game

Growth is still the name of the game as far as leasing business equipment is concerned.

Spurred by increases in capital investment, American industry, as of latest count, was planning to spend a record $116.7 billion on leasing in 1989—up 12% from 1988 totals. This follows closely on the heels of the 15% increase racked up last year (see chart).

To put this into proper perspective, some 31.5% of all business investment in equipment will be going the leasing route this year—up from 29.5% and 30.6% in 1987 and 1988, respectively. Equally significant, the new figure represents a near doubling from the 17.5% share reported less than a decade ago in 1980.

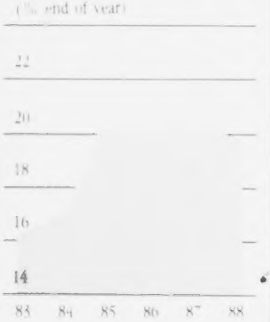
Also worth noting for buyers: Competition in the industry will remain keen among leasing firms and between leasing companies and other financial institutions. The trend away from tax-oriented finance leasing and toward operating leases will also continue. **Continued on next page...**



These latter types (those where ownership of the leased property does not transfer to the lessee at the end of the lease term) will grow faster than other types of leases—with good gains seen in the aircraft, automotive, and high-tech equipment areas.

The long-term prognosis for leasing is also quite bullish—with the specific gains depending on the level and composition of equipment investment. Active lease markets should continue to develop and grow around transportation, medical, communications and high-technology equipment.

Office vacancy rates



Real estate rates stabilize

Office vacancy rates have stabilized and are even showing signs of edging lower. But there's still plenty of competition for the rental dollar—especially in New York where one study finds it would take four years or more to absorb the existing supply. Some southwestern cities are also experiencing gluts. But there are exceptions—with vacancies at a premium in areas like Washington and downtown L.A. Meantime, availability remains virtually unchanged at 6% for industrial vacancies—with 8% and higher rates reported in Chicago, Denver, Dallas, Houston, Miami and Seattle.

Average phone bills to rise

The average overall bill should rise about 3.3% this year—a fraction under the 3.6% estimated 1988 advance. As for total dollar outlays, the gain is put at just under 6%. But this doesn't tell the whole story. Zero in on Integrated Services Digital Network (ISDN) which allows voice, data, text and video communications to travel simultaneously down the same transmission path—and the gain is likely to be several times bigger than suggested by the overall total.

Leaden prices for lead

The heavy metal is falling—with quotes now in the mid to upper 30s range—significantly under the recent 42¢/lb. peak. Also indicative of softness: Free World markets should be pretty much in balance this year—following last year's 100,000 ton deficit. And with demand expected to show only a 1% rise, prices could slip further by midyear—into the somewhat lower 30-35¢/lb. range.

Import prices rise again

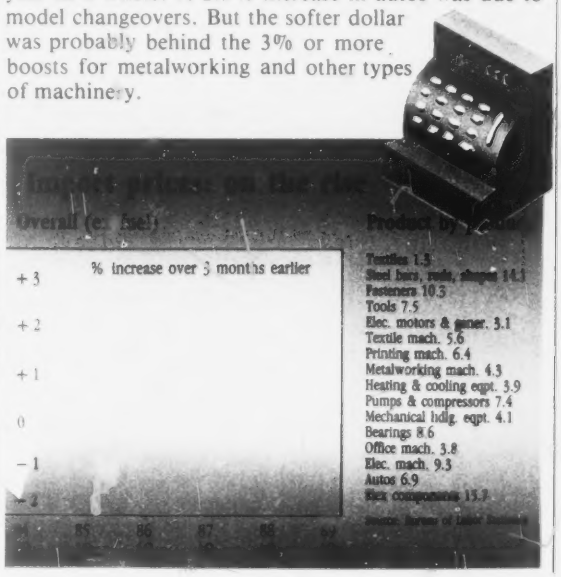
Import tags, after taking a temporary breather a few months ago, are again on the rise.

Latest Bureau of Labor Statistics data, for example, points to about a 2.4% advance (ex fuel) over the previous 3-month period. In part, this can be traced to good global demand, with another part reflecting the lingering impact of the dollar devaluation of the past few years.

About the only meaningful downturn occurred in fuel and related products. But here, too, there should be some upward moves when the next report is released—as OPEC production curtailments begin to firm the market.

The new study also compares 12-month advances over the past few years. The 1988 (ex fuel) boost of 6.9%, while high, is somewhat under the 8.2% and 9.1% increases of 1986 and 1987, respectively—a time when dollar devaluation was having it greatest impact.

- **Crude materials:** Quotes jumped a big 5.5%—bringing the overall 12-month advance to 17.0%. Biggest boosts over the latest quarter were in metal ores and scrap (up 19.2%).
- **Chemicals:** Increases averaged in the 2.3-2.4% range for the second quarter in a row—with the 12-month boost put at 10.8%. Latest hikes were again led by organics (up 3.5%). And inorganics, which had previously flattened out, posted their largest increase (2.4%) since this series was first published five years ago.
- **Intermediate manufactures:** A new 2.4% rise follows a relatively flat third quarter 1988. Increases were led by nonferrous metals (up 7.6%)—due to sharply higher zinc and copper quotes.
- **Machinery and transport equipment:** Averages rose 2.5% over the last three months—but only 5.5% for the year as a whole. A 2.9% increase in autos was due to model changeovers. But the softer dollar was probably behind the 3% or more boosts for metalworking and other types of machinery.



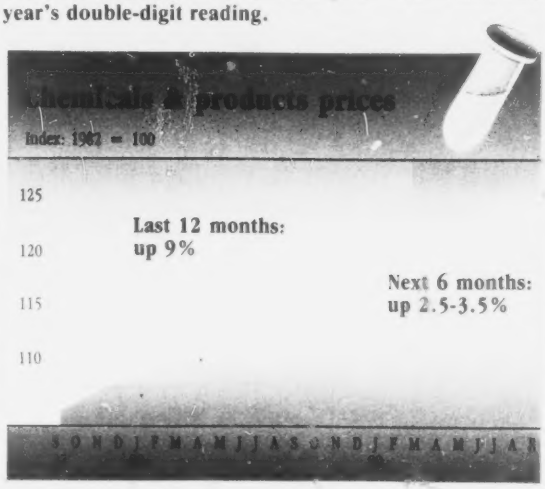
Chemicals' price rise slows

CURRENT SITUATION: Price increases are finally beginning to slow down a bit. A fair number of first quarter hikes have been posted, but on average they are a lot more restrained than in 1988 when 12-month advances (12/87-12/88) came to 19% for organics, a similar 19% for plastic resins and 9% for inorganics. Behind these increases were solid demand gains (up 8% in terms of industrial output) and a significant jump in operating rates (from 82.6% in 1987 to 86.4% last year).

DEMAND: Smaller 1989 GNP advances will result in a more modest increase in chemical output—probably something on the order of 5-6%. All segments of the industry are likely to share in the projected gains—though with some differentials in the rate of advance. Thus these forecasted increases: Plastic resins (6-7%), synthetic fibers (5-6%), organic chemicals (4.5%), chloralkalis (6%), agricultural chemicals (7%), paints (4.25%), drugs (8.5%) and soaps and toiletries (9-10%).

SUPPLY: Overall operating rates look to stabilize—with the Chemical Manufacturers Association pegging the 1989 average at 86.7%—not much changed from current levels. Part of this will reflect smaller demand gains, but another part stems from increased capital spending which during 1989 is expected to rise 15%. But capacity boosts will be uneven. Some of the biggest will be in plastics where an 8%-plus gain is seen. Debottlenecking should also make ethylene a little more available as the year wears on.

PRICE OUTLOOK: The trend is still up, but increases from here on in will be smaller and more spotty as supply/demand balance gradually improves. Costs don't look to be a problem—with industry analysts projecting only 4-5% advances in such key areas as labor, raw materials and energy. Upshot: **Figure only a modest 6% overall chemical price boost this year—well under last year's double-digit reading.**


Chemicals & products prices
Index: 1982 = 100
125
120
115
110
Last 12 months: up 9%
Next 6 months: up 2.5-3.5%
S O N D J F M A M J J A S O N D J F M A M J J A S

Aluminum shows softness

Market ingot has slipped well under last year's $1.30/lb. peak. And all signs point to a further edging down to near the $1/lb. mark by early spring. Softness could persist even beyond that time as 300,000 tons of new Free World capacity permit inventories to build up after midyear. Normally lagging fabricated products, however, are still on the rise—with selected flat-rolled items raised anywhere from 10-25¢/lb.—though some discounting from the new higher levels has been reported.

Paper prices on edge

Prices continue to edge up—with a new $30/ton increase in linerboard bringing this bellwether product up into the $440/ton range. Nor is that the only item moving up. First quarter 1989 increases have also been posted in photocopy paper, solid bleached board, and softwood and hardwood market pulp. And low inventories could well force another hike in the latter sector this spring. The oft-postponed $30/ton boost in newsprint has been pushed forward again—and even the new April date looks shaky as new capacity comes onstream.

Tougher titanium tags

Figure on paying about 10% more on average for mill products this year. Blame it all on a combination of factors—rising raw material costs, higher demand (domestic consumption will top 23,200 tons this year) and producer attempts to recoup increased energy and other operating expenses. Part of the advance has already been announced, with second quarter shipments scheduled for about a 5% boost. Compounding the upward price pressure is a big jump in scrap—with dealer quotes on ferrotitanium virtually tripling over the past year.

Synthetic fiber tags stretch up

Rising costs and better market balance are continuing to push tags up. Rayon staple fibers, for example, are moving up for the third time in less than a year—with a new 10¢/lb. or 10% boost scheduled for early April. Acrylic fibers, meantime, are advancing 6¢/lb. now and an additional 4¢/lb. in May. And finally there's talk of another 7¢/lb. increase in polyester staple by April—pushing tags 14¢/lb.

PVC prices stabilizing

The resin has stabilized at around 44¢/lb.—though one producer is still quoting 42¢/lb. on pipe grade material. And little near-term change is anticipated as an 8% capacity increase (on top of last year's 6% jump) keeps markets competitive. Pipe extruders, on the other hand, are trying to boost prices in anticipation of a spring demand pickup. These latter increases are running in the 5-8% range—partially offsetting the even bigger price declines of this past fall.

Zinc doubles up

The trend is still up here—as tags on the plating and alloying metal move above the 85¢/lb. mark, double the 43¢/lb. low of last year. Also indicative of a strong market: Recently negotiated contracts that carry smaller volume discounts and tighter payment schedules. But prices are probably as high as they're going to go as buyers complain and demand begins to level off after last year's advance. Indeed, a decline to tolerable levels looks to be in the making by summer or fall when tags could be in the 70¢/lb. range.

386s one-third off

Quotes on the recently introduced 1-megabit dynamic RAM are heading down as production lines are revved up. Best bet for 1989: A decline to around $8/unit—well under the average $14/unit price of last year. And by 1990, a further sharp drop to near $4.50/unit is anticipated. Elsewhere, Intel plans to cut its 80386SX microprocessor by a sharp 33% in April (to $89 from the previous $133 in 1000 volume quantities). Aim is to get a bigger slice of the personal computer market.

Polypropylene pricing down

The popular volume resin is beginning to soften. Latest transaction prices on big orders for the key homopolymer grade, for example, are now put in the 47-48¢/lb. range—with some material moving at even lower levels. This compares to a high of 52-53¢/lb. last summer. Another sign of weakness: Export sales at only 41-42¢/lb. Behind the easiness: Reduced demand—plus growing supplies. On the latter score, current plans call for a better-than-12% increase in production potential this year—double the expected demand gain.

Polypropylene

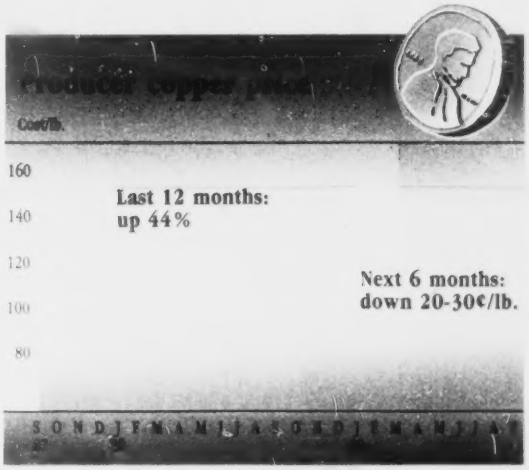
transaction price (¢/lb.)

Copper: headed for normal levels?

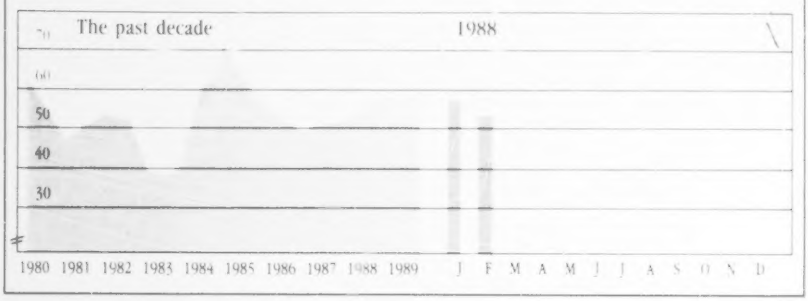
CURRENT SITUATION; The worst of the copper squeeze may be over. There are now indications that 1989 could see a modest global surplus—after five consecutive years of demand exceeding new supply. Positive signs in this respect: more capacity and an improved outlook for labor peace in the South American mines. Meantime, prices are beginning to show some signs of peaking out. On the other hand, they have a long way to go before they reach more normal levels as **the latest readings remain an eye-opening 40% above year-ago levels.**

DEMAND: As much as a 2-3% decline in U.S. consumption is likely for the year as a whole because of reduced demand from the big construction and auto markets. Global use won't be all that buoyant either. Little more than a flat pattern should hold Free World chewup to near 8.2 million tons. **Demand over the longer pull will be fairly restrained, too**—with global growth into the early 1990s expected to average out at only 1% per year. What's true globally will be equally applicable to the U.S. as few new growth areas surface. Total domestic demand is seen reaching only 2.42 million tons in 1993—not that much above the 2.31 million tons expected to clear the market this year.

SUPPLY: Things are beginning to look up—with global capacity expected to increase about 4.5% this year. Add in last year's even bigger advances, and total new potential will be up 9.5% in just two years. More specifically, additional metal is expected to come onstream in Portugal and New Guinea. Further production gains are also seen for the U.S.—as existing SX-EW facilities continue to expand, and several new projects are underway in Australia. Finally, Peru should bounce back from its strike-plagued 1988 performance. Upshot: The long stock drawdown will be reversed.

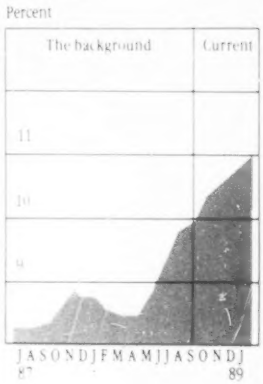


N.A.P.M. business barometer

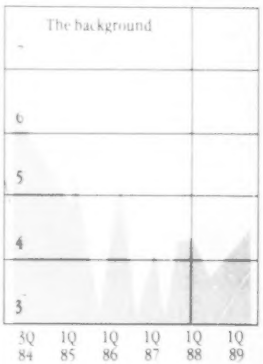


Leading indicators

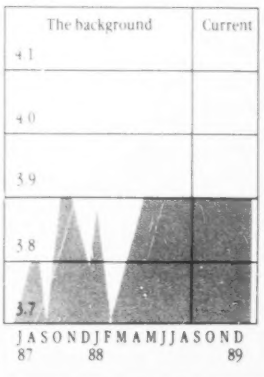
Prime rate



Savings rate percent



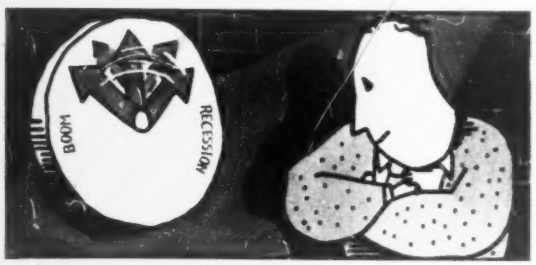
Factory overtime



KEY ECONOMIC TRENDS

Economic growth still likely

Some modest deceleration may be in the cards—as the bellwether NAPM business barometer edges down a bit—from the mid to upper 50s range of recent months to around 53 at latest report.



But that's still above the neutral 50 level—so the economy is still likely to grow. Most economists are now talking in terms of a 2-3% annual rate of advance over the next few quarters—not that much under the 3.8% average advance for all of last year.

Some of the deceleration may be forced by moderately higher interest charges. Thus the prime lending rate is now up in the 10.5% range—about 1.75 percentage points above year-ago levels. (see chart)

While this is not enough to precipitate any widespread drop-off in demand, it does suggest some marginal fall-off. Construction, in particular, is being impacted—with overall activity here expected to be off several percentage points.

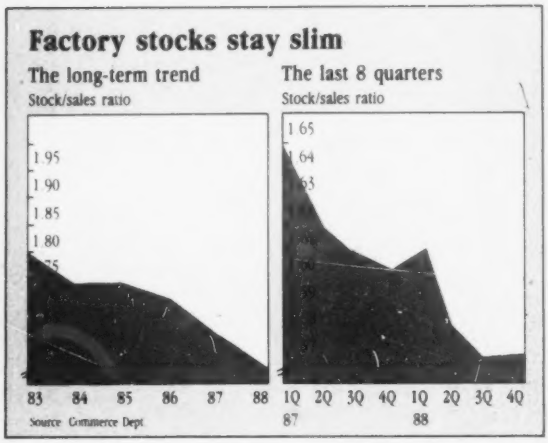
Consumer buying of autos may also slow down a bit. But at this stage of the game, deceleration will be quite small—leaving totals close to last year's 10.6 million unit level.

Moreover, consumers remain optimistic. One widely monitored confidence index, for example, has barely dropped—and it still matches the average posted for all of 1980. Conclusion: With confidence high and jobs plentiful, the average family is still likely to spend fairly liberally.

Nevertheless, some overall impact is probably inevitable. One sign of change here: The savings rate which in 1987 dropped to a low of 2.2%, is now above 4.5%. While this is still low by historical standards (see chart), it does indicate at least a modicum of caution on the part of John Q. Public.

But all the above will not be strong enough to abort the now-more-than-six-year-old business upturn. Thus these signs of offsetting strength:

- **Continuing strong demand for labor.** This is perhaps best typified by fairly high overtime levels (see chart). The fact that manufacturers are willing to pay extra for these additional hours of work attests to continuing pressure to meet burgeoning demand.
- **Low stock/sales ratios:** The overall factory ratio is at an all-time low—a pretty remarkable feat for this late stage of a business upturn. True, some auto stocks are



high at the retail level, but continuing vehicle production means that Detroit is still optimistic about the upcoming spring months.

● **Persistent export gains:** The volume of outgoing goods and services in the last quarter of 1988 (in real terms) ran close to 13% ahead of a year earlier. That's not to say that some deceleration is likely. But any increase—even a small one—is good news.

● **Buoyant ordering:** Durable bookings reported by the nation's factories jumped by more than 6% over the last reported month. More important, the gain was widespread—with increases noted in transportation equipment, steel, nonferrous metals and electrical equipment.

Machine tools also spurted. And for all of 1988, orders in this key industry soared 70% to $3.59 billion.

Equally significant, the overall durable goods order total again outpaced comparable shipment levels. Result: Another advance in unfilled orders—assuring a continued strong production showing.

Inventories staying in shape

Factory inventories—contrary to experience in other recent business cycles—remain in surprisingly good shape.

Traditionally, stocks have begun to climb in the latter stages of an economic expansion. Not so this time around—as factory inventories (see chart) actually continue to edge lower.

At latest count, for example, factory stocks were the equivalent of 1.57 months' sales. That's actually under the 1.60 reading of just a year ago and a far cry from the 1.90 peak hit in 1982 just before the current upturn got underway.

In fact, the ratio is now at a historical low—equalled only once before in 1950 when the outbreak of the Korean War set off a sales spurt which cleaned out factory shelves.

And what goes for all factory inventories is equally applicable to purchased material stocks (the PM's bailiwick). Declines here have been just as impressive—indicating that buyers have been a major factor behind today's "keep'em lean" trend.

All this, say economists, can't be underestimated—for it just about rules out a traditional downturn which usually begins with manufacturers paring inventories. More to the point: Even if business gains slow, manufacturers have little excess to cut from their shelves.

Why today's low inventory levels? The trend toward just-in-time inventory management, of course, has been a major determinant. But over and above this, there are other important factors as well—including 1) today's high interest rates (and hence high carrying charges), 2) improved supplier-buyer cooperation and 3) the ready availability of most goods (thus obviating the need for extra purchases).

Where do we go from here? Some buyers tell of even lower stock/sales targets. But any further tightening up won't be easy. Indeed, most business analysts see a rather flat stocking pattern through the next few quarters—purchasing managers and others await clarification of demand patterns into late 1989 and early 1990.

CURRENT PRICES

Higher 1989 lists affect prices

Industrial producer price averages moved up about 1% over the past month. Much of this is probably seasonal as producers put higher 1989 lists into effect.

Indeed, some of the increases reflected in the overall average advance may be exaggerated. Certainly increases in both steel and plastic resins are suspect as buyers already begin to chip away at these announced increases.

Also the 3.5% hike in energy over the last 30-day period is unlikely to be repeated. Reason: Most of the boost reflects the delayed impact of recent OPEC production curtailments. In any event, now that oil output has leveled out, so will prices.

Meantime, the energy increases reported covered virtually all lines—with boosts reported in crude oil, jet fuel, diesel fuel, gasoline, home heating oil, natural gas, residual fuel and liquid petroleum gas. Only declining coal tags managed to buck the trend.

Also moving up were a wide range of component parts and equipment lines. In the component sector, for example, higher asking prices were noted for fasteners, bearings, metal stampings, auto parts, memory integrated circuits and electric motors and

generators.

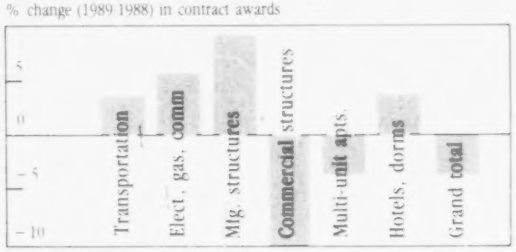
As for machinery, the upturn was also pretty broadly based—as advances hit construction machinery, machine tools, farm equipment, material handling equipment, aircraft, and transformers and power regulators. Only oil and gas field machinery and rail equipment—both declining—managed to buck the trend.

As for basic materials, the picture was more mixed. True, plastic resins advanced again, but as noted, there has been some market level erosion here. And in metals—aside from the questionable reported hikes in steel—only zinc and cadmium managed to advance. And these were offset by significant slippages in both copper and lead.

Conflicting moves are also seen in the construction material sector, where overall averages actually managed to show a fractional drop—as nonferrous wire and cable, concrete products, gypsum and glass all ended up lower. But offsetting this, to some extent, were advances in paint, plywood, brass fittings and switchgear.

Construction: Mixed bag

% change (1989-1988) in contract awards



Source: ENR/F.W. Dodge

Construction demands ease

Demand for building materials and a lot of other construction-oriented product lines (e.g. appliances) may be in for some modest declines. Reason: An unexpected drop in overall construction activity.

A new ENR/F.W. Dodge forecast of contract awards sees 1989 dollar totals slipping by about 4%. Allow for inflation, and the real volume of building may be down a few additional percentage points.

But the decline looks to be uneven. Indeed, a few sectors such as manufacturing buildings (mainly factories) could be in for a solid 9% advance. Then, too, heavy construction awards, prodded by infrastructure needs, are targeted for a 2% advance—reversing last year's 1% drop. Zero in on transportation activity (highways and bridges), and the gain is expected to be even higher—about 3%.

At the other end of the spectrum, a 15% falloff is projected for commercial structures—as the building of new office structures, stores and warehouses levels off. In the office building sector, the completion of large high-rise complexes in major cities will be taking its toll—pushing square footage down by nearly 20% this year.

It should be noted that these new contract award forecasts do not include single-family housing starts. But these are also expected to fall as mortgage rates approach the high 12% level by midyear.

Further confirmation of the relatively lackluster construction outlook comes from Uncle Sam. The government's estimated drop comes to less than 2% in real terms, but much of this is due to the fact that Washington figures 1) are in terms of outlays which lag contract award trends and 2) include still-growing repair and remodeling markets. Adjust for these factors and the picture is much the same.

PROCUREMENT STATUS REPORT

Leadtimes up slightly

Leadtimes edged up a bit last month—with *PurchasingWorld's* exclusive diffusion index moving up to 51 (one percentage point above the neutral 50 level).

True, some of this could be seasonal—for vendor performance is generally poorest in March. The NAPM Business Survey Committee, for example, finds that the differential between those reporting slower and faster deliveries reaches its peak at this time of year.

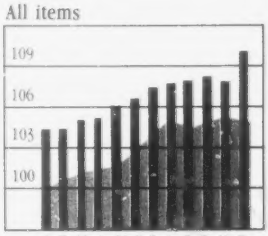
But seasonals may not be the only factor. Thus the NAPM diffusion index for vendor performance (a yardstick which has the seasonal factor filtered out)

Industrial prices

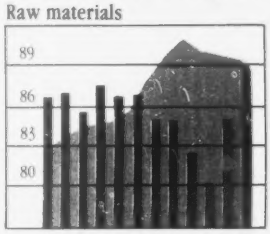
(Index: 1982 = 100)

▪1987 ●1988

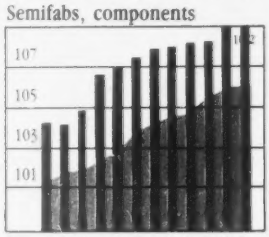
All items



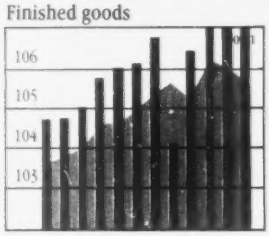
Raw materials



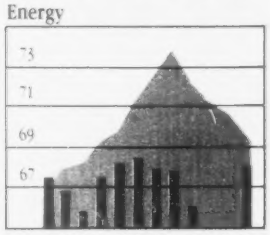
Semifabs, components



Finished goods



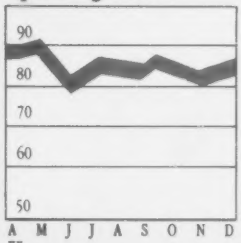
Energy



Source: Bureau of Labor Statistics

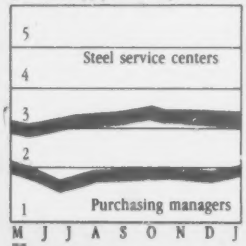
Steel

Operating rates



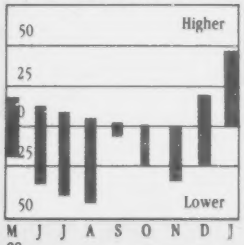
Inventories

(Months supply on hand)

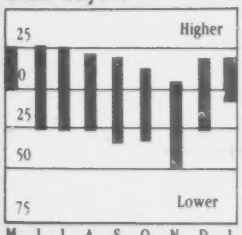


Demand

(Percent of respondents)



Steel buyers



Source: Steel Service Center Institute. NAPM Steel Buyers Committee

has also been inching ahead—reaching 54.0 over the past month.

One reason could be the faster-than-expected first quarter ordering pace. Earlier projections had called for a deceleration in the rate of overall growth. But now the slowdown has been pushed ahead to the latter half of the year.

In any event, a fair number of items remain on the NAPM's short supply list. These include steel, many nonferrous metals, plastic resins, paper, caustic soda, titanium dioxide and electronic DRAMs.

But it should be noted that many of these products may be ready to go off the list. New capacity is beginning to come onstream in such areas as nonferrous metals, plastic resins and DRAMs. Moreover, steel shortages, while undoubtedly being experienced, aren't nearly as prevalent as they were last year (see Steel Scene, this section).

Also indicative of better times ahead: More PMs are paring rather than adding to inventory levels. The diffusion index here (45.5 *versus* a norm of 50) is at its lowest point in nearly a year—despite the fact that production activity continues to rise.

Import prices

(compared to domestic)

Steel buyers

ABOVE 53%
SAME 34%
SLIGHTLY BELOW 13%
SUBSTANTIALLY BELOW 0%

Service centers (carbon)

ABOVE 4%
SAME 81%
5-10% BELOW 15%
10-20% BELOW 0%
OVER 20% BELOW 0%

Another reassuring procurement sign: Only 16% of queried PMs said they are currently ordering production materials 90 days or more in advance—down significantly from the 20-22% range prevailing over the previous three months.

STEEL SCENE

Brighter steel outlook seasonal?

The near-term steel demand outlook is a bit brighter these days. But how much of the improvement is seasonal and how much represents a real rise in consumption remains to be seen.

In any event, both buyers responding to the latest NAPM steel survey and distributors responding to the most recent Steel Service Center Institute (SSCI) query expect an increase in steel activity over the next three months. In the case of PMs, it represents a reversal of the previous 10 months, when those contemplating a pullback consistently outnumbered those figuring on an increase in their metal buys.

As for steel service centers, the 40% expecting an increase in incoming orders was the largest such number in nearly a year and a half. More important, it completely overshadows the minuscule 3% who feel business might decline.

The good start would seem to back up SSCI President Andrew Sharkey who predicts a fairly good year for his group—despite forecasts calling for a general deceleration in the overall rate of economic growth later on in the year. This steel executive, for example, puts total distributor shipments at near 23 million tons—just a shade under 1988's record 23.4 million ton level.

If correct, it would mean further service center penetration of the overall steel market, for as a companion steel story in this issue suggests, total domestic usage will be off by upwards of a million tons this year.

Both buyers and distributors, meantime, seem to be making some headway in reducing steel inventories. In the case of purchasing managers, for example, supply on hand has dropped under two months—bringing levels back to near year-earlier readings.

A second straight monthly decline was also reported by service centers—though here the supply on hand (just over 3.25 months) is still about a quarter of a month above levels prevailing a year earlier.

The decline in inventories, incidentally, is expected to continue as service centers and buyers prepare for the somewhat less

buoyant late 1989 consumption pattern alluded to above. The big question, of course, is how much overall impact further inventory reduction will have on metal demand.

Then, too, demand may not be the only factor pointing to reduced holdings. Another is the gradually improving supply situation. Right now things are beginning to soften—easing pressure to lay in a little bit extra.

More to the point: The only problems—and they're relatively modest compared to last year's—are centered in plate and sheet.

While on the subject of price—the jury seems to be out on whether these as well as other price hikes will ever take hold. True, some 30% of distributors feel they will be paying more for their metal in six months. But only 3% see the increase as coming to over 5%. Moreover, a sizable 18% feel that average prices may well be lower by summer.

This month's breakdown

Index: 1982 = 100

	Latest level (Jan)	% change from: Month ago	Year ago
Bearings	121.1	0.7	11.1
Bolts, nuts, etc.	109.7	1.5	4.6
Chemicals, inorganic	106.1	1.4	9.6
Chemicals, organic	119.9	2.7	20.4
Concrete products	110.4	−0.1	0.6
Corrugated cartons	111.9	−0.1	5.8
Cutting tools, small	108.8	0.3	2.2
Electric lamps (bulbs)	123.4	0.7	1.4
Electronic components	119.5	0.6	3.0
Fans and blowers	116.3	0.4	3.8
Foundry and forge products	112.3	0.8	4.4
Fuel oil (residual)	41.9	5.3	−7.7
Furniture, commercial	126.8	0.3	4.6
Gasoline	55.4	−0.2	3.0
Glass, flat	110.6	−0.3	2.4
Glass containers	112.3	0.0	0.0
Gypsum products	111.1	−2.5	−8.1
Hand tools	124.2	0.5	4.8
Hand tools, power driven	115.2	1.3	4.2
Industrial furnaces	122.1	0.2	3.8
Integrating and measuring instruments	117.7	1.7	2.4
Internal combustion engines	112.8	0.3	2.4
Lubricating oil	107.2	0.6	4.4
Lumber millwork	123.5	0.3	3.2
Material handling equipment	109.7	1.2	5.7
Metal containers	109.6	−0.3	1.2
Metal mill shapes (nonferrous)	140.3	−0.2	14.3
Metal tanks	107.9	0.5	9.1
Motors and generators	126.1	1.0	6.4
Motor trucks	131.0	0.9	5.8
Office and store equipment	108.4	−0.3	2.2
Paperboard	137.8	1.0	8.8
Paper boxes and shipping containers	127.1	0.2	6.2
Paper office supplies	119.7	0.8	8.0
Paint	115.0	1.2	6.0
Plastic resins	140.8	0.6	15.9
Precision measuring tools	121.8	0.0	4.2
Pumps and compressors	112.7	1.2	5.7
Refractories	116.4	0.9	3.4
Rubber belts and belting	108.5	0.6	5.8
Scales and balances	106.0	−0.7	1.1
Steel products	113.6	0.8	5.9
Switchgear	116.8	1.8	5.6
Textiles, synthetic fibers	100.2	0.5	6.1
Textiles, gray fabrics	115.3	0.4	3.1
Tires and tubes	95.9	0.4	3.8
Transformers and power regulators	112.7	1.3	4.9
Welding equipment	120.5	1.3	6.4
Wire and cable	147.3	−1.0	11.8

NAPM procurement trends

(seasonally adjusted diffusion indexes)

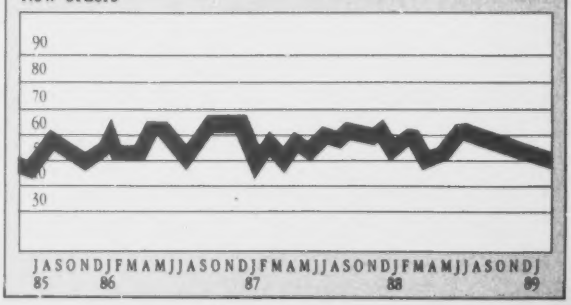
An index where 50 is defined as the neutral level, to the extent a reading is above 50, it represents an expansionary tendency. More particularly, rising inventory prices, and new orders are seen as positive signs of economic growth. A trend toward slower deliveries is similarly interpreted.

Inventories

Speed of delivery

Prices

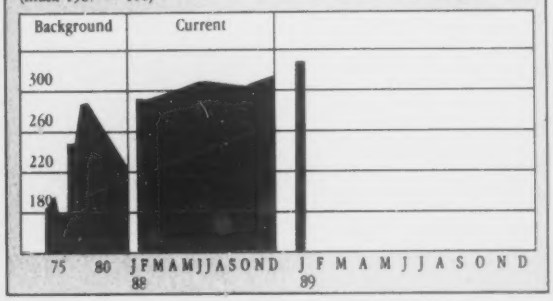
New orders



Raw material price barometer

(Index 1967 = 100)

Last month 323.9
Month before 317.2
Year ago 292.5



Latest spot market prices

	Latest price	Previous month	Year ago
FERROUS METALS			
Pig iron, basic, valley, gross ton	213.00	213.00	213.00
Pig iron, Bessemer, Pitts., gross ton	213.00	213.00	213.00
Steel, billets, Pitts., net ton	367.00	367.00	367.00
Steel, structural shapes, Pitts., cwt.	23.90	23.90	23.90
Steel, structural shapes, Chi., cwt.	23.90	23.90	23.90
Steel, structural shapes, Los Angeles, cwt.	23.90	23.90	23.90
Steel, bars, dlvd. Phila., cwt., merchant quality	16.50	16.50	16.50
Steel, bars, Pitts., cwt.	16.50	16.50	16.50
Steel, bars, C.R., Pitts., cwt.	19.45	19.45	19.45
Steel, plates, Pitts., cwt.	23.25	23.25	19.75
Steel, plates, H.R., Pitts., cwt.	23.25	23.25	19.75
Steel, sheets, C.R., Detroit, cwt.	29.65	28.15	28.15
Steel, strip, C.R., Chi., cwt.	36.18	36.18	36.18
Steel, basic wire, Pitts., cwt.	23.65	23.65	23.65
NONFERROUS METALS			
Aluminum, ingot, lb. (market place)	1.05	1.13	.920
Antimony, N.Y., dealer, lb.	1.00	0.98	1.14
Beryllium-copper, cost ingot, lb.	5.90	5.90	5.90
Brass, red, 85%, [sheet], lb.	2.13	2.13	1.72
Brass, yellow, [sheet], lb.	2.09	2.09	1.67
Cadmium, N.Y., dealer, lb.	8.35	8.45	3.50
Copper, electrolytic, wire bars, refd., lb.	1.50	1.50	1.08
Copper sheet, over 24 in., lb.	2.22	2.22	1.81
Lead, common, N.Y., lb.	.37	.40	.37
Magnesium, pig ingot, [99.8%], lb.	1.63	1.63	1.53
Mercury, 20 fl. lots, N.Y., fl.	310.00	280.00	360.00
Molybdenum, oxide, dealer, lb.	3.48	3.46	3.15
Nickel, cathode, dealer, lb.	8.30	8.40	3.80
Platinum, dealer, oz.	530.00	520.00	445.00
Silver, N.Y., oz.	5.94	5.97	6.43
Tin, N.Y., dealer, lb.	3.50	3.44	3.15
Zinc, Prime West, East St. Louis, lb.	.870	.800	.460
Zinc, die casting alloy, No. 3, lb.	.900	.865	.515
PAPER			
Uncoated book #3 offset, ton	965.00	965.00	890.00
Watermarked bond, ton	1080.00	1080.00	985.00
Gummed sealing tape, carton	18.58	18.36	17.09
Grocery sacks, ton	460.00	460.00	435.00
Solid bleached paperboard, ton	730.00	730.00	650.00
Kraft linerboard, 42 lb., unbleached, ton	440.00	410.00	380.00
TEXTILES			
Burlap, 10 oz., 40", N.Y., yd.	.283	.280	.276
Cotton drill, 1.85, 59", 68x49, N.Y., yd.	1.18	1.18	1.24
Cotton middling, 1", N.Y., lb.	.529	.537	.564
Printcloth, 48", 80x80, N.Y., spot, yd.	.500	.500	.535
Army duck, 37", 13 oz., yd.	1.50	1.50	1.51
Blended printcloth, 64", 78x54, yd.	.70	.70	.72
20s combed yarns	1.80	1.80	2.00
Wool 64s, Staple, lb.	4.50	4.50	3.87

	Latest price	Previous month	Year ago
CHEMICALS			
Acrylonitrile, tanks, lb.	.360	.360	.395
Ammonia, anhydrous, tankcars, Gulf Coast, ton	125.00	125.00	75.00
Benzene, petroleum, tanks, Houston, gal.	1.87	1.85	.95
Caustic soda, 76% solid, drums, carlots, cwt.	28.00	28.00	26.00
Cresylic acid [over 25%], tanks, lb.	.55	.55	.58
Formaldehyde, USP, 37%, [12% to 15% meth.], tanks, lb.	.106	.106	.106
Glycerine, synthetic, tanks, lb.	.760	.760	.685
Methanol, syn., tanks, 4,000 gals., f.o.b. Gulf Coast plants	.60	.60	.49
Naphthalene, crude, tanks, lb.	.16	.16	.22
Phthalic anhydride, tanks, lb.	.41	.41	.32
Polyethylene resin, low density liner film grade (market place), lb.	.515	.515	.425
Polypropylene, nomopolymer grade (market price), lb.	.475	.495	.495
Polystyrene, general purpose grade (market price), lb.	.59	.59	.55
Polyvinyl chloride, pipe grade (market price), lb.	.44	.44	.39
Soda ash, 58%, light carlots, cwt.	6.15	6.15	6.15
Styrene monomer, 99.6%, tanks, lb.	.500	.500	.460
Sulfur, crude, ex-terminal, Tampa, Fla., lt.	142.00	142.00	127.50
Sulfuric acid, 66%, commercial, tanks, ton	66.86	66.86	66.86
Titanium dioxide, anatase, reg., carlots lb.	.950	.950	.800
Xylene tanks, gal.	1.40	1.40	.76
BUILDING MATERIALS			
Lumber, 2x4 fir, mbf, cl	326.30	328.39	320.05
Lumber 2x2 pine, mbf, cl	311.06	321.41	322.55
Plywood, plyform, ⅜", msf, cl	547.39	547.94	568.90
Plywood, ⅜", msf, cl	368.28	375.50	397.85
Cement, bulk, ton, tl	63.48	63.71	64.07
Sand, ton, cl	7.23	7.23	7.31
Ready-mix concrete, 3,000 psi/cu. yd., 15 cu. yd.	48.55	48.77	48.84
Crushed stone, 1½", ton. cl	6.71	6.68	8.34
Concrete blocks, sand/gravel, 8"x8"x16", per hundred	86.72	86.72	N.A.
Reinforcing bars, whse base; per cwt	20.85	20.85	19.82
Asphalt paving AC-20	106.26	105.44	139.82
Vitr. Clay Sewer Pipe, Prem Joint, 12", per ft, cl	7.39	7.26	7.01
Concrete sewer pike, 24", prem. joint, per foot, cl	7.92	7.73	N.A.
FUELS			
Crude oil (W. Tex Int Cush), bbl.	17.40	18.15	17.10
Diesel (reseller rack, Chi), gal.	.5175	.4700	N.A.
Fuel oil No. 2 (N.Y.), gal.	.5060	.5535	.4825
Fuel oil No. 2 (Gulf spot), gal.	.5300	.4575	N.A.
Fuel oil No. 6 (N.Y.) contract cargo, bbl.	20.00	18.75	N.A.
Gasoline (reg lded NY), gal.	.4910	.5225	.4725
Gasoline (reg unlded NY), gal.	.4785	.4975	.4585
Kerosene (reseller rack, Chi), gal.	.6075	.5180	N.A.
Propane (Mt. Belvieu, Tex), gal.	.1925	.2200	.2375
SCRAP MATERIALS			
Steel, No. 1, hvy., dlvd., Pitts., ton	122.00	115.00	124.00
Steel, No. 1 hvy., dlvd., Chi., ton	119.00	114.00	117.00
Copper, No. 1, East, wholesale buy, dlvd., lb.	1.12	1.10	0.88
Copper, No. 2, East, wholesale buy, dlvd., lb.	.995	.985	.785
Brass, red, East, wholesale buy, dlvd., lb.	1.080	1.060	0.840
Brass, yellow, East, wholesale buy, dlvd., lb.	.540	.540	.415
Alum., old sheet/cast, E., wholesale buy, dlvd., lb.	.670	.660	.575
Alum., mixed clip., E., wholesale buy, dlvd., lb.	.760	.760	.660
Zinc, old, East, wholesale buy, dlvd., lb.	.240	.240	.200
Lead, clean solids, East, wholesale buy, dlvd., lb.	.270	.270	.240
Paper, No. 1 mixed, dlr., N.Y., ton	Nom.	Nom.	Nom.
Paper, old corrug. box, dlr., Chi., ton	Nom	10.00	25.00
Paper, old corrug. box, dlr., N.Y., ton	Nom.	Nom.	10.00
Old newspapers, Chi., ton	Nom.	Nom.	N.A.
Old white ledger, Chi., ton	75.00	85.00	N.A.

[Sources: Metals Week, American Metal Market, Engineering News-Record (20-city averages), The Wall Street Journal, Journal of Commerce, Chemical Marketing Reporter.]

Freight rates give bad news and good

Bad news and good news from Wharton Econometrics' new freight rate rundown:

Somewhat on the disappointing side were higher rate increases for the year just ended. More specifically, the overall advance was adjusted upwards to 4.6%—more than a full percentage point above the estimate made just three months earlier (*PurchasingWorld*, 12/88, page 42).

On a rosier note, however, is the downgrading of this year's expected increase—from the 4.7% made just three months ago to only 4.1%.

Two reasons for last year's upward revision: 1) The freight-propelled increase in barge rates (6.6%) was greater than originally anticipated and 2) exceptionally strong demand helped push air tariffs up a hefty 7.4%—far above an earlier 5.6% projection.

Looking at the current year, overcapacity and healthy competition will continue to limit increases to something near the overall general inflation level. And even in 1990 and 1991, the overall advances are put in the 5.3% range.

But focusing on such averages hides some interesting trends. Air as well as water rate hikes will decelerate this year. On the other hand, increases for both truck and rail will be somewhat in excess of those posted in 1988.

Here's a more detailed mode-by-mode rundown prepared especially for *PW* by Wharton analysts:

● **Trucking:** Demand was quite strong last year, with up-to-date American Trucking Association figures pointing to an 8-9% tonnage advance. This increase—along with 1) hikes in truck user fees and taxes on state level and 2) rising wage rates—pushed the average freight bill up 4.5% for the year as a whole.

Concerns for price pressures in 1989 and 1990 focus on these same factors. Then, too, there's worry about an expected increase in the Federal tax on fuel which could hit truckers hard. Nevertheless, little rate acceleration is expected. Hikes, for example, should hit only 5.0% this year, 5.3% in 1990 and 5.1% in 1991.

● **Rail:** Ton miles rose by close to 6% last year. Behind this good advance: A big pickup in exports of both raw commodities and manufactured goods—plus the fact that imports of many of the goods carried in import containers on double-stack service also held up. However, intermodal competition from truckers held 1988 rate hikes to only 3.5%.

True, future rate advances will accelerate—but only moderately as 1) competition continues to be a major factor and 2) labor cost boosts remain modest.

Another possible moderating factor in rail rate hikes is the productivity adjustment being considered by the ICC for use in its Rail Cost Adjustment index which is used to determine permissable rail increases. Upshot: Rail freight tabs should rise by about 5% this year, then grow by 5.5% in both 1990 and 1991.

● **Air cargo:** Traffic was up dramatically last year—nearly 13% domestically and by over 20% internationally. Fueling these increases was the more widespread implementation of Just-In-Time inventory management. These healthy traffic gains, in turn, inevitably led to rate hikes, with the average advance last year put at 7.4%.

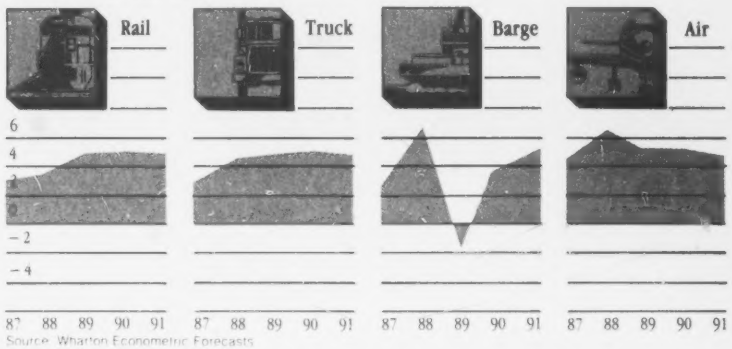
This year, inventory management should continue to boost air shipments. But growth in overall economic activity, as well as in exports, should slow somewhat.

● **Water:** Last year's big barge rate boosts have to be regarded as a one-shot deal. In any case, tariffs should drop back to more normal rates this year—with a 1.9% decline on an annual basis now anticipated.

As for the longer pull—figure on a gradual return to rising rates.

Freight cost outlook by mode

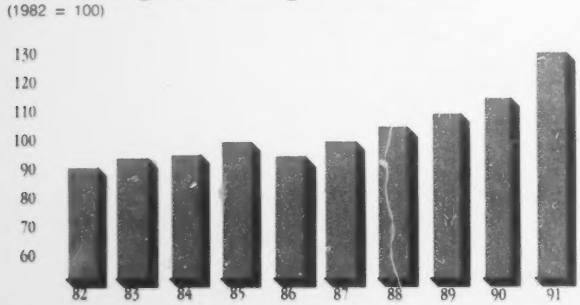
(percent increase over previous year)



Source: Wharton Econometric Forecasts

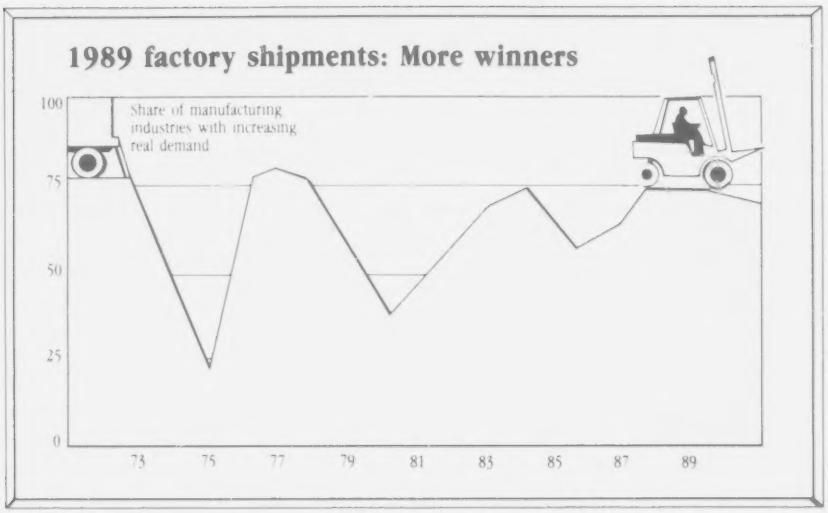
PurchasingWorld freight rate index

(1982 = 100)



	INDEX	% CHANGE
1981		11.0
1982		2.0
1983		3.0
1984		0.6
1985		4.6
1986		−1.2
1987		3.0
1988		4.6
1989		4.1
1990		5.3
1991		5.3

Growth across the board



Uncle Sam's economists are bullish about the new year. Not only are the majority of the nation's manufacturing industries expected to rack up real gains this year, but inflationary pressures are being put in the tolerable range.

The buoyant economy is best summed up in the chart alongside which shows 74% of industries surveyed expected to show an increase in real shipments this year. That's not all that different from a year ago when a similar survey on the 1988 outlook called for increases in 79% of the industries.

Equally important, the average mean growth for U.S. manufacturing industries for which forecasts are made is expected to be 1.8% (measured in constant dollars). Moreover, half of those industries are seen growing by 2.2% or more.

Also worth noting: 40% of the industries are forecast to have record shipments in 1989. The non-durable goods industries will be the stronger performers—with 53% of them forecast to have record shipments, considerably more than the 31% in durable goods.

As for inflation, the new government study (1989 U.S. Industrial Outlook) is actually calling for a slight deceleration—at least as far as the all-inclusive GNP deflator is concerned. Thus the 3.7% projected advance here is actually under the 4.0% number given for the year just ended.

The new study doesn't give many individual price estimates. However, *PurchasingWorld* magazine analysts, by comparing the current and constant dollar shipment estimates given for a fair number of industries, have come up with some "ball park" implicit price projections.

Detailed in the table on page , they also suggest moderation—with a few declines thrown in for good measure. The only double-digit boosts are for oil (reflecting the new OPEC agreement to curtail production) and some fertilizers (reflecting a substantial increase in demand).

A more comprehensive demand rundown of expected 1989 changes, meantime, is shown on page —with some of the biggest (double-digit) real gains seen for machine tools and semiconductors. Detailed market discussions for many of these industries—culled from this annual tome which is available for $24 from the Superintendent of Documents, Washington D.C. 20402—follow:

- **Building materials:** Virtually all monitored items should show demand declines—reflecting a 1.6% drop-off in real construction. Some of the individual declines anticipated: Flat glass (4%), hydraulic cement (1.8%), brick and tile (2.8%), ready mix concrete (2.0%), gypsum products (2.0%), mineral wool (5.0%), fabricated structural metal (6.0%), softwood lumber (2.0%).
- **Paper and paperboard:** A 2.9% shipment gain is projected. More supplies are scheduled to come on-stream to meet these current and projected increases. Specifically, more than six million tons are scheduled over the 1988-90 period—with much of this centered in draft paperboard, free-sheet paper and newsprint.
- **Corrugated boxes:** A 3% real demand gain is seen for 1989. Supplies should be adequate—though board mill utilization is expected to stay near last year's close-to-full-capacity levels. Long-term growth is put at near 2.5% a year.
- **Metal cans:** Only a fractional 0.3% price rise is anticipated for 1989. Demand, meantime, could be up about 3.6%—with much of the upward impetus coming from the soft drink market. On the material

score, steel (taking advantage of high-priced aluminum) could stage a modest comeback.

● **Glass containers:** Only a small 0.6% price rise is expected as demand falls by nearly 1%. Much of this loss will be due to switchovers to plastic containers which are expected to rise a substantial 7-8% this year.

● **Organic chemicals:** Constant dollar shipments will rise 3.1% in 1989 as the industry operates at maximum capacity to meet burgeoning demand for plastics. Because of tight supplies, prices of many individual products will remain strong and import volumes will stay high.

● **Chloralkalis:** Shipments look to increase about 6%. This, in turn, could push prices up about 1.5%. High operating rates also point to more imports as domestic suppliers are hard pressed to meet high demand.

● **Industrial gases:** Demand should level off—rising only 0.4% because the industries using them will show only modest gains. This demand slowdown—plus increasing capacity—will hold prices down, with a 2% decline possible.

● **Plastic resins:** A solid 4% demand increase is forecast—with the same rate of growth anticipated into the early 1990s. Price increases will slow, with actual boosts depending on the cost of such key petrochemical feedstocks as ethylene and styrene.

● **Hose and belting:** Output will grow 2% this year, as a function of greater auto demand. Buying from other end users such as construction and farm equipment will only be in the 1-2% range. Similar long-term advances are seen though v-belts should do better than flat belts.

● **Paints and coatings:** Prices could drop as much as 2%—despite continuing, albeit smaller, demand gains (2% this year *versus* 6.4% in 1988). Longer term, growth looks best for specialty and corrosion-resistant coatings.

● **Adhesives and sealants:** Despite a 6% demand gain, prices should hold relatively steady. Longer term, the industry faces stiff competition from Europe and Japan in the high-tech specialty adhesives area.

● **Steel mill products:** A 6% demand decline will stem from a drop-off in the construction and appliance sectors. Auto demand could be off a bit, too. Ditto, buying for inventory as stocks are pared. Prices, meantime, seem to be leveling off, with a 1% drop in overall averages a good possibility for 1989.

● **Ferrous castings:** Figure on a 1% increase in real shipments. Also the industry should recapture more business from overseas suppliers if the dollar holds at near last year's levels. Because of closings, operating rates should rise about 4%—to 80% for iron foundries and 60% for steel foundries.

● **Aluminum:** Prices are likely to hold onto a good part of their recent gains. Demand, sparked by strong container, packaging and transportation markets—could be up about 1%. Rising exports and falling imports should also have a plus effect on shipments. Longer term, supplies will be adequate into the early 1990s (Canada alone plans on a 50% expansion)—though prices will drop a bit from inflated 1988 readings.

● **Copper:** The construction pause will drop domestic demand by close to 2%—and world totals will rise by less than 1%. Superimpose this on a rising global production trend (up 2-3%)—and new supplies should exceed demand—relieving some of the price pressures on the world market.

● **Nickel:** A fall in U.S. consumption—combined with a 2% increase in global production—points to softening prices. On the whole, LME quotes are still expected to average well above $4/lb.

● **Nonferrous castings:** A better-than-5% decline in real shipments is expected—with environmental pressures making for the largest drops in castings made of lead and copper-based alloys containing lead. Smaller drops are seen for aluminum and zinc because of somewhat slower auto and industrial machinery production. The weaker dollar, meantime, will continue to make for a reduction in imports.

● **Machine tools:** Look for big 1989 real shipment gains in both the metal-cutting area (14%) and the

1989 prices: Uncle Sam's assessment

Industry %	change 89/88	Industry %	change 89/88
Lighting fixtures	3.1	Oil field mchy	3.2
Sawmills & planing mills	−1.8	Food product mchy	3.2
Hardwood & flooring	−1.1	Printing trade mchy	3.3
Glass containers	0.6	Transformers	2.4
Metal cans	0.3	Telecommunication	3.3
Crude oil	11.0	Electronic components	−1.3
Chloralkalis	1.6	Semiconductors	−3.4
Industrial gases	−1.8	Photo eqpt & supplies	0.4
Nitrogenous fertilizers	20.0	Autos	2.5
Synthetic rubber	2.1	Trucks	4.0
Paints	−1.9	Truck trailers	2.2
Adhesives & sealants	0.1	Auto stampings	0.5
Steel mill products	−0.9	Auto parts & accessories	1.2
Iron & steel foundries	0.9	Aerospace	4.6
Nonferrous foundries	2.9	Aircraft	4.8
Machine tools	5.0	Aircraft engine	5.1
Power driven hand tools	1.6	Skybuilding & repair	2.9
Pumps & pumping eqpt	1.2	Commercial printing	4.7
Air & gas compressors	1.7	Hotel rates	3.5
Mining mchy	1.7	Travel costs	4.5

Source: Commerce Dept. Most estimates calculated by comparing current and constant dollar shipment projections

metal-forming area (10%). Unit prices are also moving up by about 5%. But some of this is probably due to upgrading rather than pure price.

● **Power driven hand tools:** Unit prices are forecast to rise 1.6% this year. Real demand will also be up by about 3.4%. Cordless tools should be especially strong. But the chain saw market looks a bit soft.

● **Pumps and compressors:** Both sectors should show real demand gains of around 3%. Leading the advance will be purchases by the process industries, water and sewage projects, and power plants. Unit prices will creep up, too—1.2% in the pump area and 1.7% in the case of compressors.

● **Refrigeration and heating equipment:** A 1% decline in demand is possible. But this could be an understatement if renovation and replacement markets grow 2-3%. Also possible: A 10% jump in exports in response to new market initiatives and improved products.

● **Farm machinery:** A solid 5% increase in real shipments is shaping up for the year—as farmers make up for the near-zero advance of last year (caused by the long summer drought). Imports, however, remain a factor—accounting for close to 25% of the entire domestic market.

● **Mining equipment:** A 3% increase in real shipments is predicated on increased demand for state-of-the-art equipment from the extractive and mineral processing industries. Exports are also likely to remain strong—accounting for over 19% of total shipments this year. Prices should be up a modest 1.7%.

● **Industrial fasteners:** Good gains in specials (fasteners made to buyer specifications) will help make for a 3.5% overall advance in real terms. Most of the standard types will continue to be imported since U.S. manufacturers cannot usually match prices quoted by foreign producers. But import increases will now come more from newly industrialized countries than from Japan and Canada (the two largest overseas suppliers).

● **Valves and pipefittings:** A combination of gains in the processing industries, paper and export sectors will make for a 3.5% real 1989 increase in shipments. But imports—especially from Mexico—will be a market factor (accounting for near 14% of total domestic consumption).

● **Bearings:** Rising prices will be a problem for buyers as dumping charges against foreign producers help curtail import competition. As for demand—a 3% real increase is anticipated—pretty much in line with the expected growth in the overall economy.

● **Electrical equipment:** A flat demand year is seen—with only transformers managing to rack up a small (1.3%) gain. Switch gear could be off as much as 2%. As for prices—a 2.5% increase is possible in the transformer area.

● **Computers:** Current dollar shipments will rise about 10%, with real demand up somewhat more as prices edge lower. Buying will be brisk for advanced scientific and engineering models, work stations, and personal computers.

● **Semiconductors:** Prices will decline about 3.5% as supplies come back into better balance. In particular, prices for logic devices should drop significantly as capacity increases. Biggest declines (near 25%) are possible in tags for 32-bit MPUs. As for demand a solid 13-14% real boost seems to be shaping up.

● **Industrial and scientific instruments:** Real growth will be in the order of 6% this year—somewhat under last year's 11% jump. Measuring and control investments will show the smallest advance (4.5%).

● **Motor vehicles:** North American auto sales will fall only fractionally under last year's estimated 10.7 million units. Prices will be up about 2.5%.

● **Aerospace:** Increasing demand for commercial large transport aircraft will make for a 1% overall real increase—offsetting declines in the military sector. ***PW***

1989 Growth—Pretty much across the board

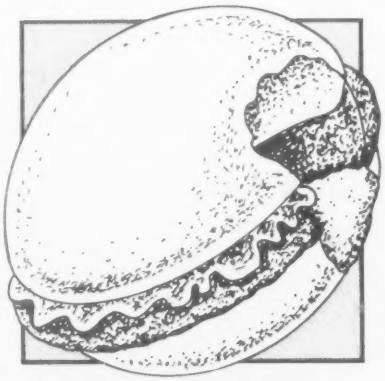
Industry %	real growth	Industry %	real growth
Lumber millwork	1.0	Construction mchy	3.0
Softwood plywood	−2.0	Mining mchy	3.0
Papermills	3.0	Metal-cutting machine tools	13.9
Folding paper boxes	1.1	Metal-forming machine tools	10.0
Corrugated boxes	3.0	Power driven hand tools	2.8
Chloralkalis	6.0	Paper industries mchy	13.0
Industrial gases	0.4	Pumps & eqpt	3.0
Plastic resins	4.0	Bearings	3.0
Paints	4.0	Air & gas compressors	3.1
Cyclic	3.2	Refrig & heating eqpt	−0.5
Adhesives & sealants	6.0	Carbuerators, pistons, etc.	−1.8
Tires & tubes	3.0	Transformers	1.3
Hose & belting	2.2	Switchgear & boards	−0.2
Flat glass	−4.0	Motors & generators	−0.2
Glass containers	−1.8	Industrial controls	0.1
Hydraulic cement	−1.8	Lighting fixtures	−1.8
Gypsum products	−2.0	Radio & TV sets	4.0
Steelmill products	−6.9	Telephone & telegraph eqpt	4.1
Primary copper	2.8	Communications eqpt	4.0
Nonferrous foundries	5.2	Semiconductors	13.4
Metal cans	3.5	Storage batteries	3.0
Fabricated structural metal	−6.0	Autos	−0.5
Screw machine products	5.5	Truck & bus bodies	3.3
Fasteners	3.5	Truck trailers	2.7
Valves & pipe fittings	3.5	Engineering & scientific instruments	5.0
Farm machinery	5.0	Process control instruments	3.0

Food cost pressure stays low

Upward pressure on the cost of living (and hence wage rates from food prices) is expected to remain relatively modest this year. Overall averages, according to a new Department of Agriculture forecast, call for a 3-5% boost in eating tabs—not all that different from the 4% increase racked up in 1988.

On the whole, prices of fruits and vegetables, cereal and bakery products, and eggs will contribute most to the overall boost. The latter, for example, is targeted for a hefty 15-20% rise.

On the other hand, meat and poultry boosts will be quite small—though



beef will cost anywhere from 1-3% more. Also because of the trend toward eating more fish, this category could be up 4-7%.

The drought's effect on food is difficult to measure. But without the drought, Uncle Sam's analysts feel that meat production would be somewhat larger—and 1989 meat prices would be slightly lower than currently forecast. All in all, the drought probably added about 0.5% to food averages in 1988.

Eating out will also cost a bit more during the current year—about 4-6% *versus* 4% last year. Blame this on rising labor and operating costs.

The table below provides a more detailed rundown on what to expect on a commodity-by-commodity basis:

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Transport costs cooled by competition

Competitive pressures should again help hold most 1989 freight rate increases to modest proportions—with the all-modal average advance put around 3%.

The estimate, culled from a new *PurchasingWorld* magazine nationwide survey of traffic managers, suggests that the overall boost won't be all that different from 1988. The only big change: Less upward pressure from the barge sector as inland water levels return to normal.

The aggregate 3% increase is slightly under the 4.1% projection made by Wharton Econometrics (see accompanying story). But the slightly higher Wharton figure can probably be explained by the fact that Wharton data doesn't always pick up all of the unofficial discounting.

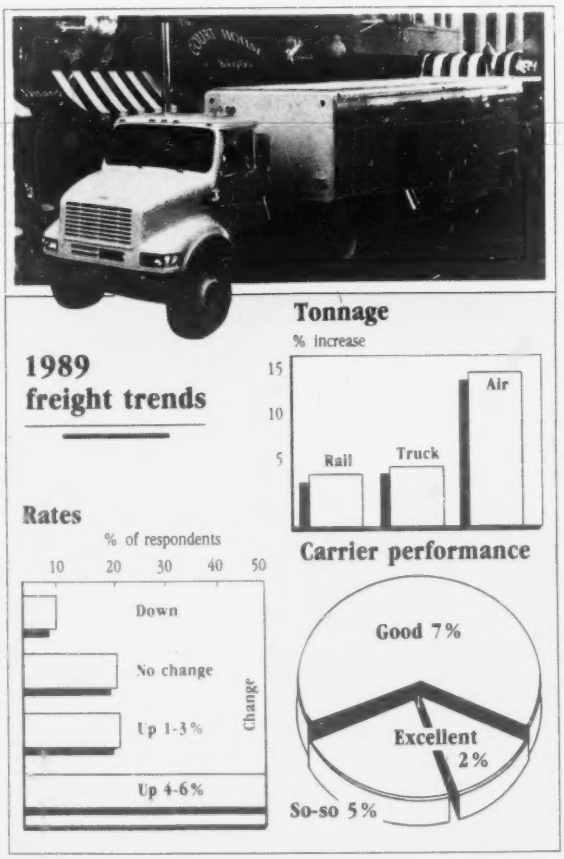
In any event, such discounting—while not quite as deep and widespread as last year—is still a factor to contend with. For example, one or two percentage points are expected to be chipped off a new 4.8% truck rate boost just now going into effect.

One traffic manager feels the end result will be an increase somewhere in the 2-3% range—with volume shippers faring best in keeping the new trucking hike to modest proportions.

Another freight buyer, citing anticipated deceleration in tonnage gains, feels the overall 1989 trucking increase after discounts will be in the 2% range. As he puts it: "In a slower growth environment, carriers just won't be able to walk away from freight as easily as they did last year."

The competitive market is also apparent in the air sector, where a proposed 5% increase on eastbound North Atlantic shipments is running into considerable flak.

Survey findings also suggest that freight discounts in some cases can run quite high. A few large volume shippers, for example, say they can get anywhere from 40-60% off published schedules. And they see little reason to expect any significant change over the current year.



Some of the new study's other key findings:

● **1989 rates:** Despite upward cost pressures, not one respondent sees overall rate increases exceeding 6%. On the other hand, the fact that only a handful expect to equal or do better than last year would seem to point to a more orderly market than has prevailed over the past few years.

● **Contractual agreements:** More shippers are taking this approach. And the savings can be substantial—with a few respondents putting it upwards of 50% as compared to official list levels.

● **Non-rate factors:** Carriers today are tending to offer a lot of "extra" services to help shippers. Some of these include 1) improved monitoring of shipments, 2) arrangements for door-to-door transportation regardless of the number of individual modes used and 3) helping with customs paper work where imports and exports are concerned.

● **Carrier performance:** About one out of every five is concerned about damaged shipments. But aside from this, the consensus is that carriers are doing a fairly good job. Some 70% rate performance as "good," with an additional 20% dubbing it as "excellent."

● **1989 volume:** Most traffic managers say tonnage advances will be somewhat under those of last year—primarily because GNP growth is expected to be slightly more restrained. On the truck front, most estimates fall in the 3-5% range—well under last year's big 8% tonnage gain.

Rail increases, too should be somewhat smaller—for several reasons: For one, barges will regain some of their lost business. Also international trade gains will be harder to come by. *PW* respondents put the overall rail tonnage increase in the 3% range—about half that of last year. And even this is larger than the 1% or so advance projected by Commerce Department analysts.

As for airlines, continuing big gains in freight are forecast—with totals again expected to duplicate last year's double-digit increases. On the other hand, there should be enough space to go around as cargo capacity continues to exceed demand. And this, say transportation buyers, should keep a lid on any big new rate hikes in this sector. **PW**